

MODIS TECHNICAL TEAM MEETING

February 22, 1996

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were Dick Weber, David Herring, Steve Ungar, Al Fleig, Bob Murphy, Wayne Esaias, Barbara Conboy, Bill Barnes, and Yoram Kaufman.

1.0 SCHEDULE OF EVENTS

Feb. 27 - 28	MODIS SDST Science Advisory Panel at GSFC
March 18 - 19	EOS Test Site Meeting
March 20	MODIS Science Software Review at Valley Forge
March 22 - 23	SWAMP at Valley Forge
March 26 - 27	MODIS Quarterly Review at SBRS
April 30	MCST-Science Team Precursor Meeting at GSFC
May 1 - 2	MODIS Software Acceptance Review (tentative dates)
May 1 - 3	MODIS Science Team Meeting at GSFC
May 16 - 17	SWAMP Land Discipline Review

2.0 MINUTES OF THE MEETING

2.1 MODIS Project Reports

Weber announced that SBRS is now in the process of installing the new 184-pin connectors into the MODIS Protoflight Model (PFM). To improve the stability of the PFM lenses, SBRS is also reinstalling all lenses on the fore and aft optics assemblies using a different adhesive and larger contact area. Lee Tessmer, of Hughes, is assessing the impact of the recent hardware problems on the MODIS production schedule and will report his findings to the MODIS Project Office.

Chris Scolese, Ken Anderson, K. Grady, J. Bryson, and H. Phillips of the EOS AM Project traveled to Santa Barbara yesterday to tour the SBRS facility and discuss issues.

2.1.1 MODIS-Light Discussions

Barnes announced that there was a meeting yesterday, chaired by Ray Taylor, EOS AM-2 payload manager, to continue discussions on a modified MODIS for AM-2 and following EOS flights. Taylor has asked for a review of possible science impacts by the Science Team discipline leaders by Feb. 29.

Salomonson stated that his own opinion and his perception of the Science Team's collective opinion is that the hyperspectral approach does not meet at this time the requirements to very carefully position and shape the MODIS bands; e.g., the carefully positioned ocean bands. He said he would like for Ray Taylor to attend the MODIS Technical Team Meetings periodically to keep the Team apprised of

progress made toward developing a MODIS-light or any other version of an advanced MODIS.

Barnes said he is producing a matrix that compares MODIS science requirements with MODIS-light options to illustrate the science impact of the possible approaches. Salomonson suggested that all technical efforts toward scoping possible MODIS-light options should also take into consideration the NPOESS (National Polar Orbiting Environmental Satellite System) efforts.

Kaufman feels that a hyperspectral MODIS is not a good idea for EOS AM-2, but he stated that it is a good idea to develop the technology as a separate, demonstration platform. He feels that as a research-oriented mission, there are some interesting possibilities to consider, such as changing channels frequently.

2.1.2 Spacecraft Maneuvers

Barnes stated that there is still uncertainty within EOS Project as to what spacecraft maneuvers will be done. Barnes told the Team that there may need to be compromise among the respective instrument teams.

Barnes explained that the SWAMP has discussed some spacecraft maneuvers that cause the radiative cooler to heat up. MODIS could lose 1.5 days of thermal band (bands 20 to 36, less band 26) data after completion of the maneuver as the cooler is returning to its operational temperature. Maneuvers have been proposed that do not expose the cooler to the Earth or sun and do not result in any loss of thermal data, but these are relatively complex maneuvers.

2.1.3 Day Versus Night Mode

Barnes reported that according to Ed Chang, of GSFC Code 421, the proposal for a 50/50 split between day and night mode will be submitted to the EOS Change Control Board for review.

2.2 SDST Reports

Fleig reported that SDST and the MODIS Land Discipline Group held a two-day meeting that was well-attended by representatives from both groups. During the meetings, a schedule for delivery by MODLAND of its Version 1 software was agreed upon, as well as the protocol for the software's transfer to the GSFC DAAC in the November/December 1996 timeframe. There is now also agreement between the groups on the differences between Beta and Version 1 software. Fleig said SDST now understands what sort of synthetic data are needed to undergo system testing. He feels that SDST will deliver a good presentation at the Science Software Review (SSR) in March.

Fleig noted that there is an alarming number of MODIS meetings scheduled for this spring.

The Land Group identified the need for a discussion on a typical day's processing operation. Fleig said that SDST plans to discuss this topic with EOSDIS.

2.3 Atmosphere Group Reports

Kaufman said he met recently with Michael King, EOS senior project scientist, to discuss possible ways of funding the AERONET network. He reported that AERONET has not yet received funding for 1996. Kaufman feels that the network is very important for validation of MODIS products. Also, AERONET is playing an important role helping the Atmosphere Group characterize aerosols for purposes of developing its algorithms.

2.4 MODIS Project Scientist Reports

Murphy announced that there will be an SSR dry run scheduled for the week prior to the SSR.

Regarding the direct broadcast concerns voiced by Esaias at the last Technical Team Meeting, Murphy told the Team he discussed the subject with Chuck Wendy and Jim Dodge, of NASA HQ Code Y. Murphy feels that a letter from the MODIS Team Leader stating that there is a Level 1 requirement that is not getting the attention that is needed. He noted that although EOS Project has been trying to drop the direct broadcast requirement for the last 5 years, the Science Team wants direct broadcast to be implemented.

2.5 MAST Reports

As requested by the MODIS Team Leader at an earlier meeting, Herring submitted a list of all of the MODIS-related reviews and workshops scheduled during the present 18-month time window, looking back over the last 6 months and forward over the next 12 months (see Attachment 1).

3.0 ACTION ITEMS

3.1 Closed Action Items

1. *Masuoka*: Provide an estimate at the Feb. 22 Technical Team Meeting of when MAS data from the Alaska campaign will be available. [Masuoka reports that the data will be available by the end of March 1996 if the calibration arrives on schedule in mid-March.]
2. *SDST*: distill the questions and concerns about metadata into a list and prepare a strawman for resolving the concerns. [Masuoka reports that he will present MODIS metadata concerns and other software delivery issues on Monday at Skip Reber's Data System Working Group workshop at Hughes.]
3. *Murphy*: Meet with Jim Dodge to determine how headquarters views direct broadcast as fitting into EOS Project's responsibilities, and report back to the MODIS Technical Team.

4.0 ATTACHMENTS

NOTE: All attachments referenced below are maintained in MODARCH and are available for distribution upon request. Please contact David Herring, MAST Technical Manager, at (301) 286-9515, Code 920, NASA/Goddard Space Flight Center, Greenbelt, MD 20771 if you desire copies of any attachments.

1. A Summary of MODIS-related Reviews from 6/95 to 1/97, by David Herring

Summary of MODIS-related Reviews 6/95 - 1/97

June 8, 1995	Presentation on a Possible MODIS-lite to the MODIS Technical Team
June 13 - 14, 1995	MODIS EM Test Review at SBRC
July 17-18, 1995	MCST/SDST Peer Review at GSFC
Aug. 1 - 2, 1995	MCST Software Test Readiness Review
Aug. 7 - 10, 1995	Vicarious Calibration Workshop at Wallops
Aug. 8, 1995	MODIS Transient Response Presentation
Aug. 31, 1995	Data Quality Assurance Presentation by Bob Lutz to the Technical Team
Sept. 13 - 14, 1995	MODIS Calibration Peer Review at SBRC
Sept. 13 - 14, 1995	Snow and Ice Workshop
Oct. 11 - 12, 1995	SDST Test Data Workshop
Oct. 24 - 25, 1995	SDST Science Advisory Panel (SAP) Review
Oct. 30, 1995	MODIS Quarterly Software Management Review
Oct. 30 - Nov. 3, 1995	EOSDIS Incremental Design Review for Release B System
Nov. 2 - 3, 1995	SWAMP Meeting
Nov. 6, 1995	BRDF/Albedo Product Informal Review at Boston U.
Nov. 7 - 9, 1995	MCST TIR ATBD Audit at U. of Wisconsin-Madison
Nov. 8 - 9, 1995	SDST Workshop on Subsetting Data
Nov. 14, 1995	MODIS Programmers' Forum
Nov. 15 - 17, 1995	MODIS Science Team Meeting at GSFC
Dec. 4 - 5, 1995	MCST Reflected Solar ATBD Audit at U. of Miami
Dec. 11 - 14, 1995	MCST OBC ATBD Audit in Tucson
Dec. 12, 1995	MODIS Quarterly Management Review at SBRC
Dec. 15, 1995	SDST Requirements Review for Level 1 Processing and Geolocation, at GSFC
Dec. 18, 1995	Level 1B software CDR at GSFC
Dec. 19 - 20, 1995	Calibration 1995 ATBD review at GSFC
Jan. 23	MCST SAP Workshop at GSFC
Feb. 20 - 21	MODLAND-SDST SSR at GSFC
Feb. 27 - 28	MODIS SDST Science Advisory Panel (SAP) at GSFC
March 12 - 13	EOS Ground System Review (SDST attends)
March 18 - 19	EOS Test Site Workshop
March 19	SDST Science Software Review
March 20	MODIS Science Software Review at Valley Forge
March 22 - 23	SWAMP at Valley Forge
March/April	Bob Murphy's review of U. of Arizona (Scope is TBD)
March/April	New Millennium Workshop at JPL
April 15 - 19	Aerosol Remote Sensing Workshop
April 30	MCST-Science Team Calibration Meeting at GSFC
April 30	Second MODIS Programmers' Forum
April	MCST Flight Operations Workshop
May 1 - 3	MODIS Science Team Meeting at GSFC

May 1	Cloud Mask Review at MST Meeting
May 6-10	EOS IWG
May 13 - 17	Validation Review Workshop by D. Starr
May 16 - 18	SWAMP Land Algorithm Review
July	MCST SAP at GSFC
July	MCST Mission Operations Readiness Review
August	MCST Flight Operations Workshop
Sept.	MODIS Product Readiness Review of Version 1 Software (2 days)
Oct./Nov.	International LST Workshop
Oct./Nov.	MODIS Science Team Meeting
Jan./Feb 1997	Second ATBD Review